SPECIAL DATA COLLECTION SYSTEM EVENT REPORT SOUTHERN CALIFORNIA, 1 JUNE 1975

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Teledyne Geotech

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SDCS-ER-75-29

SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Southern California, 1 June 1975

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

SDCS Event Report No. 29

Southern California, 1 June 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	Origin Time	Latitude	Longitude	m_b	M_s
NORSAR	01:38:57	35.1N	116.9W	4.3	N/A
LASA	01:38:22	32.7N	118.1W	4.8	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitude become

01:38:51.4	34.6N	116.4W	4.8	4.9

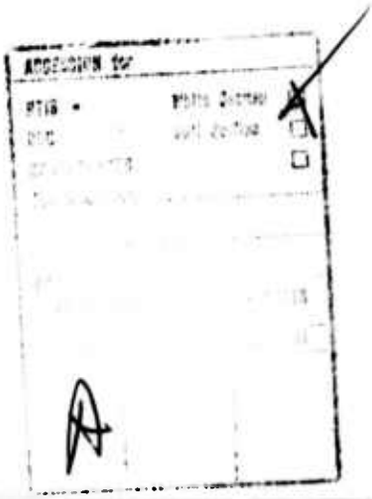
All SDCS stations were operational during this period.

Well-defined short-period signals were recorded at CPSO and RK-ON. At WH2YK a questionable P-arrival has been marked. The hypocenter determination has zero residual for this time. There is no observable signal at FN-WV. Comparison should be made with the 03 June 75 event (SDCS-ER-75-21) where relatively low amplitude was obtained at FN-WV as compared with CPSO for nearly identical azimuths. At HN-ME the short-period vertical data appears to be invalid. LASA and NORSAR event processing outputs are included. The signal is well-defined at LASA and weak, but apparently valid, at NORSAR.

Long-period signals were received at all five SDCS sites. Long-period array beams are included for LASA and NORSAR; ALPA long-period data were unrecoverable.

Details of the program used to obtain vertical, radial and transverse long-period data at LASA and NORSAR are in the process of being reviewed. Vertical beams are probably valid while horizontal beams are questionable.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.



STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 316° ± 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

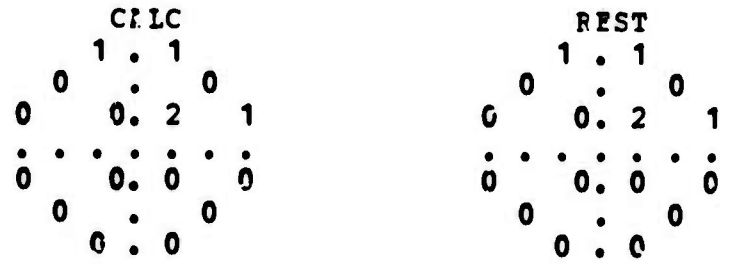
HYPOCENTER DETERMINATION

INPUT FOR EVENT 1 JUN 75
01:38:22.0 32.700N 118.100W 0KM.

STA.	ARRIVAL	RESIDUALS CALC	RESIDUALS REST	DIST. REST	AZ. REST
LAC	01 42 14.0	0.0	0.1	14.3	29.6
RK-ON	01 43 57.8	-0.1	-0.1	23.2	38.6
CPO	01 44 18.1	-0.0	0.1	25.2	78.9
WH2YK	01 44 49.3	-0.0	0.0	28.7	341.0
NAO	01 50 37.2	0.1	-0.0	75.6	23.7

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
01:38:53.2	34.656N	116.422W	10. CALC	0.0	5	5
01:38:51.4	34.619N	116.449W	0. REST	0.1	3	5



CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.74
MAJOR 71.1KM. MINOR 47.9KM. AZ= 25 AREA= 10702 SQ.KM. RFST

DATA SUMMARY

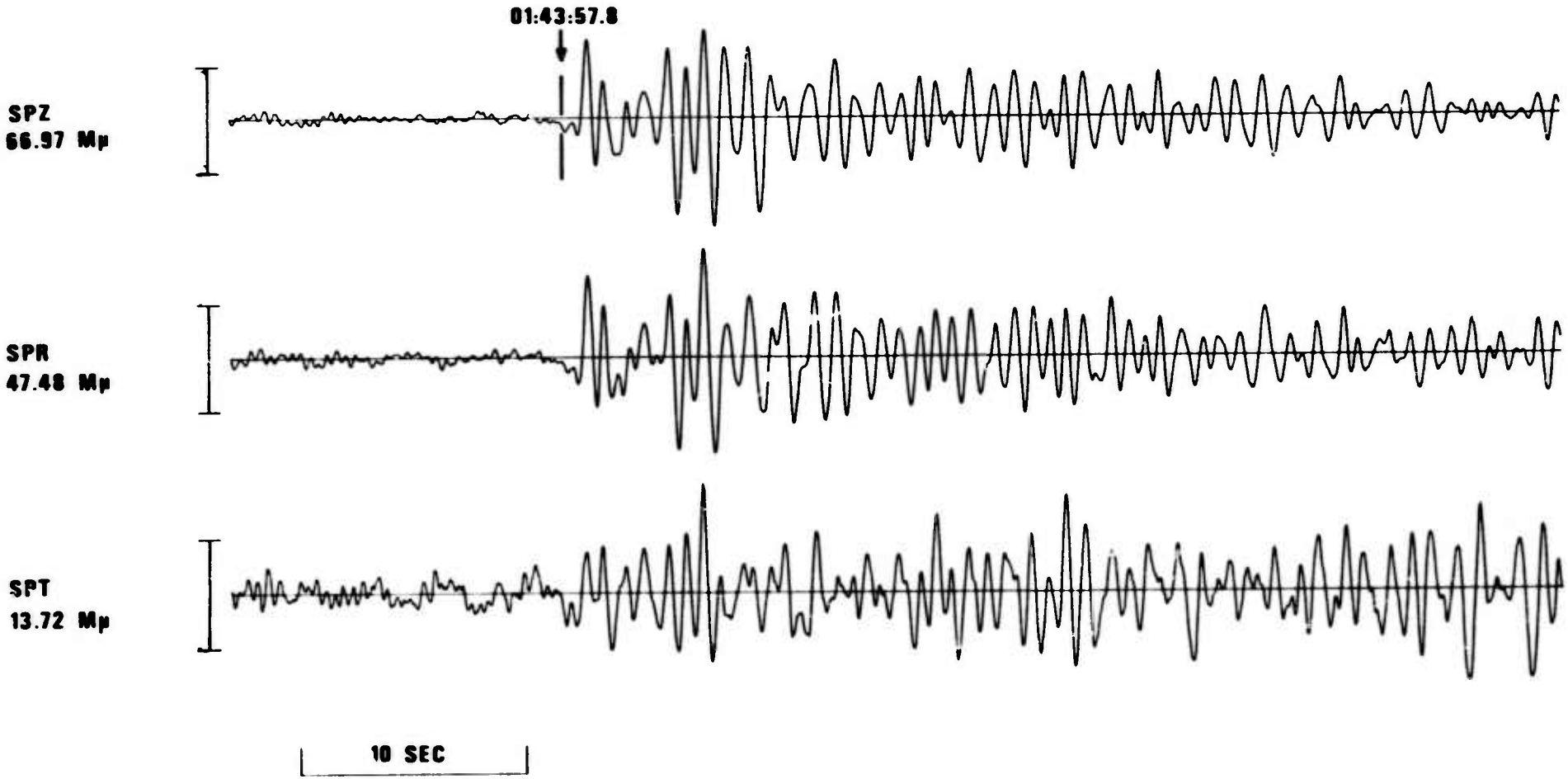
INPUT FOR EVENT 1 JUN 75
01:38:22.0 32.700N 116.100W 0KM.

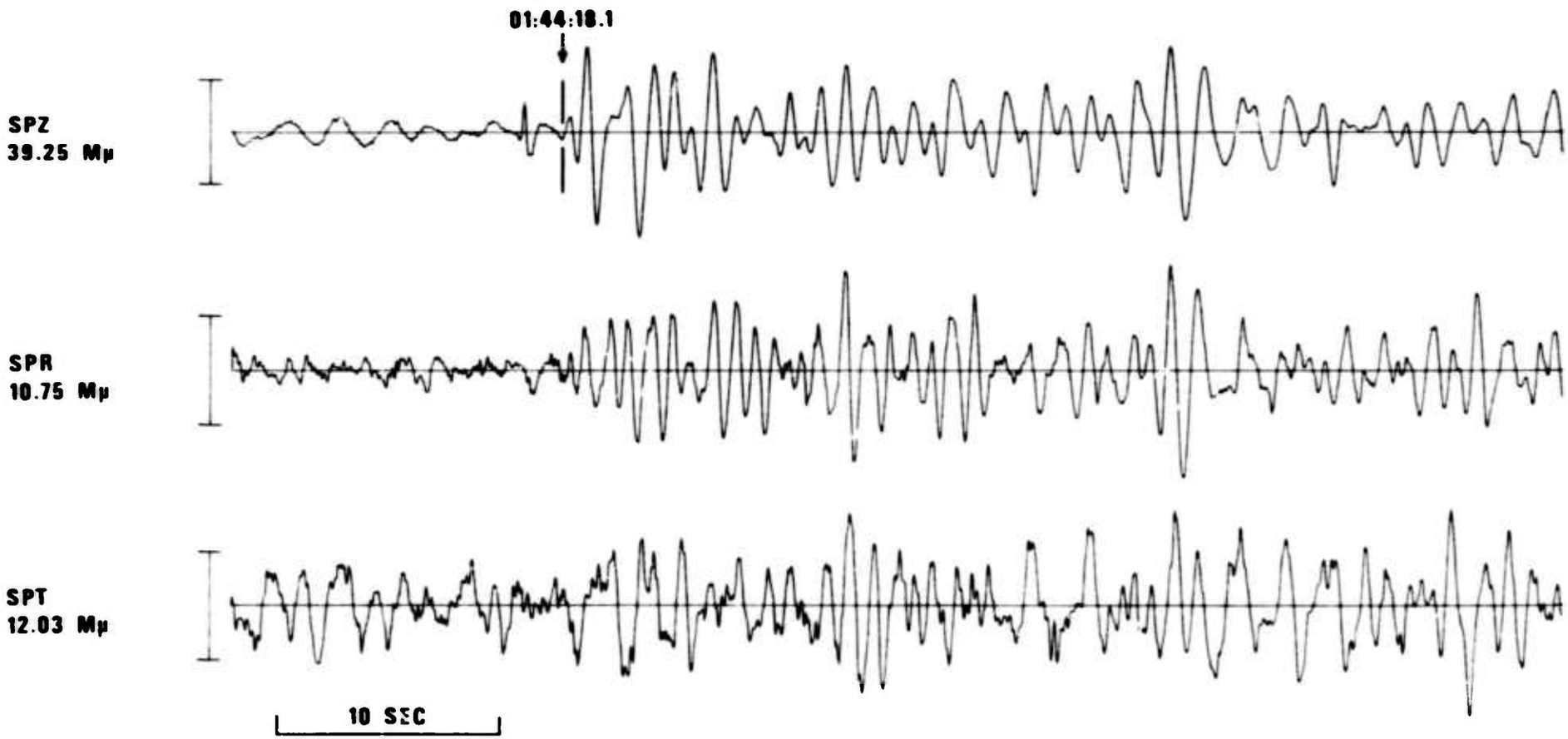
STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE MB	MS	DIF	DIST
LAC M	EP	01 42 14.0	AE	1.1	54.	4.94			14.3
LAC	LR	01 48 05.0	LPZ	18.0	301.		4.75		14.3
RK-CN	EP	01 43 57.8	SPZ	0.9	104.	5.02			23.2
RK-CN	LQ	01 50 55.0	LPT	17.0	944.				
RK-CN	LR	01 52 37.0	LPZ	17.0	666.		5.31		23.2
CPC	EP	01 44 18.1	SPZ	0.9	65.	4.99			25.2
CPC	LQ	01 52 44.0	LPT	18.0	784.				
CPC	LR	01 54 24.0	LPZ	17.0	354.		5.07		25.2
WH2YK	EP	01 44 49.3	SPZ	1.3	24.	4.68			28.7
WH2YK	LQ	01 55 01.0	LPT	21.0	347.				
WH2YK	LR	01 56 04.0	LPZ	21.0	120.		4.66		28.7
FN-WV	LQ	01 55 06.0	LPT	19.0	821.				
FN-WV	LR	01 57 10.0	LPZ	19.0	238.		4.97		29.8
HN-ME	LQ	01 59 34.0	LPT	18.0	183.				
HN-ME	LR	02 01 57.0	LPZ	18.0	188.		4.98		38.1
NAC	EP	01 50 37.2	AE	1.0	7.	4.41			75.6
NAC	LR	02 23 00.0	LPZ	20.0	21.		4.32		75.6

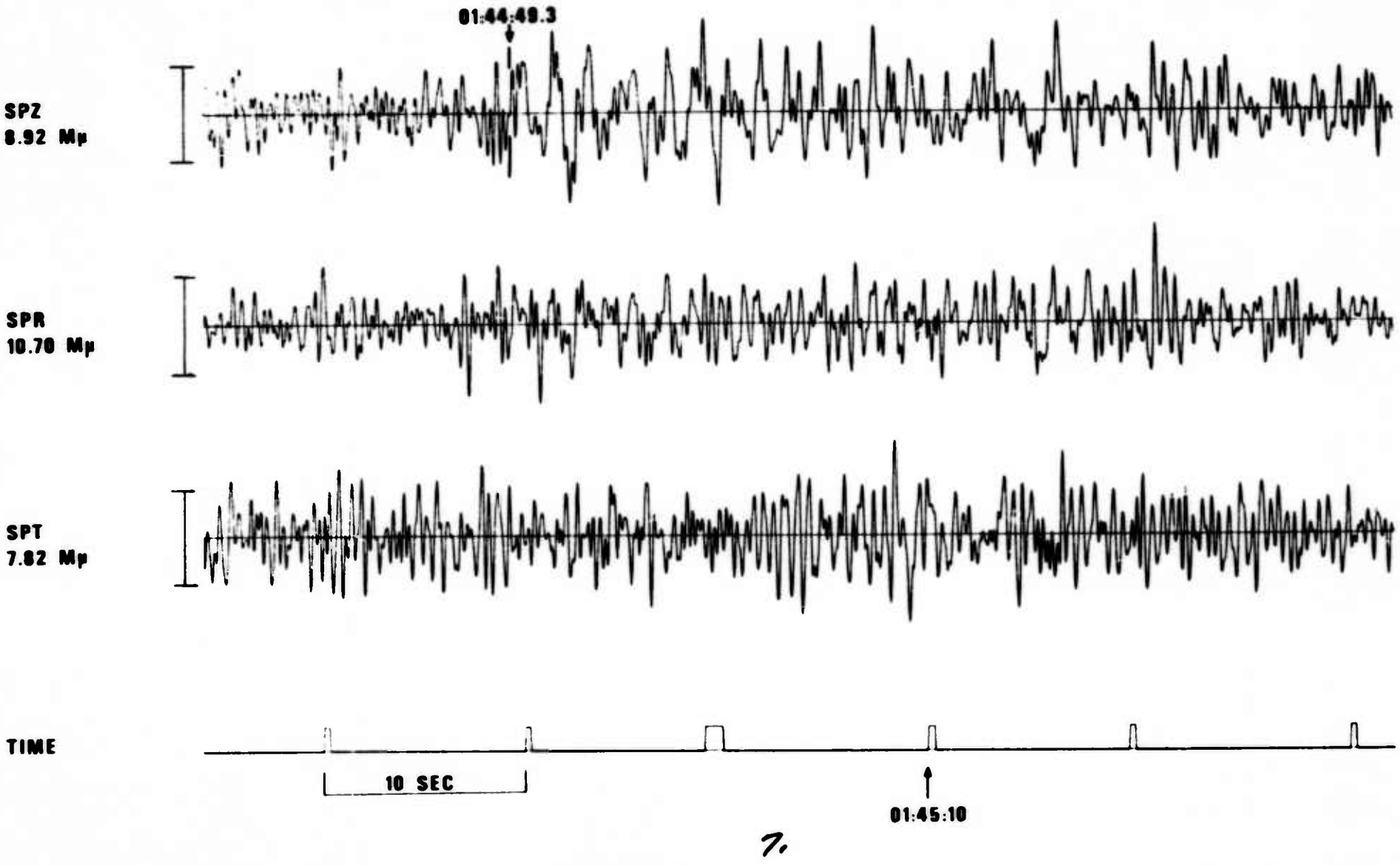
ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
01:38:53.2	34.656N	116.422W	10. CALC	4.75	0.29	4	4.86	0.3	7
01:38:51.4	34.619N	116.449W	0. FEST	4.77	0.29	4	4.87	0.3	7

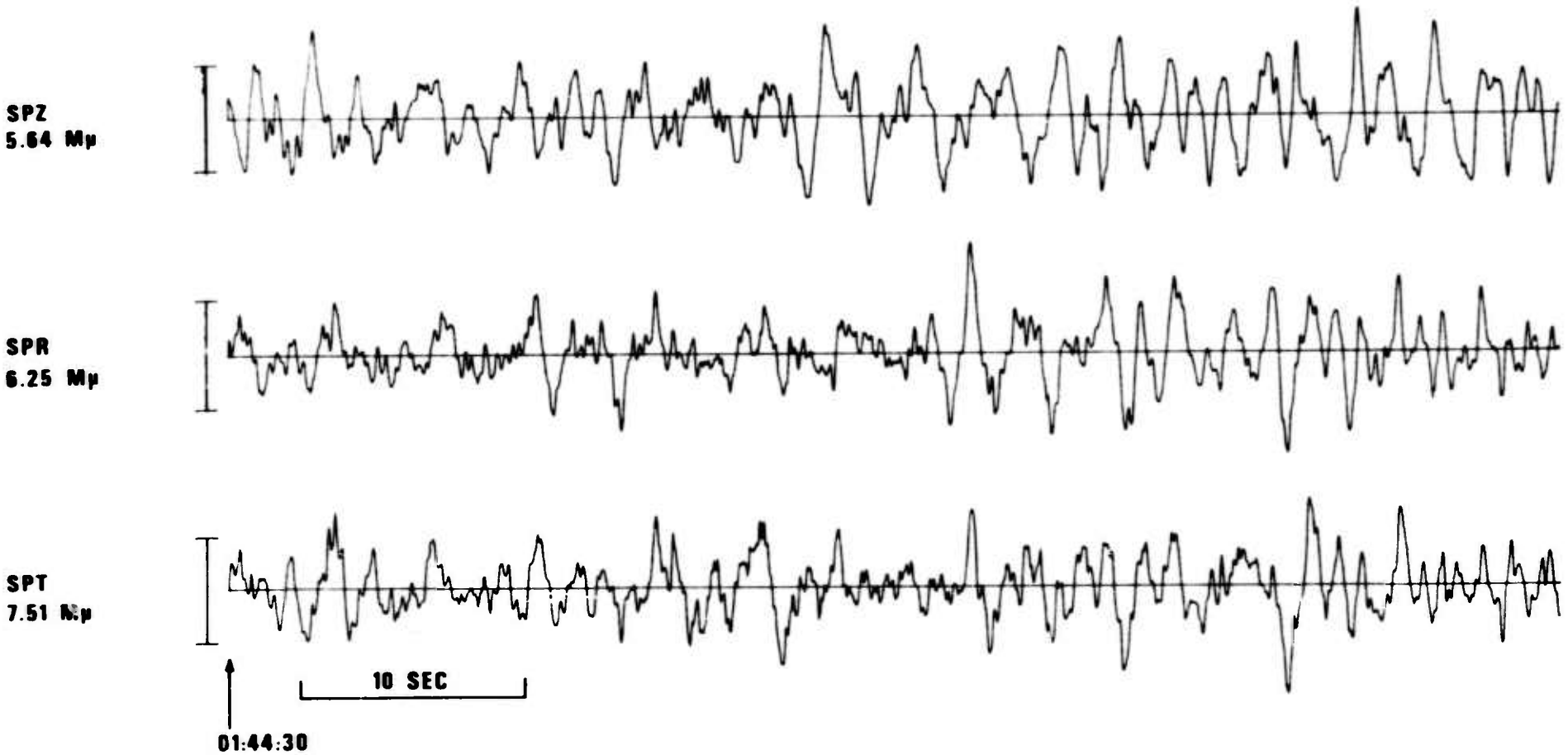
LAC NOT USED IN CALC RUN SP AVG. MAG.
LAC NOT USED IN FEST RUN SP AVG. MAG.

Short-period magnitudes (m_b) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

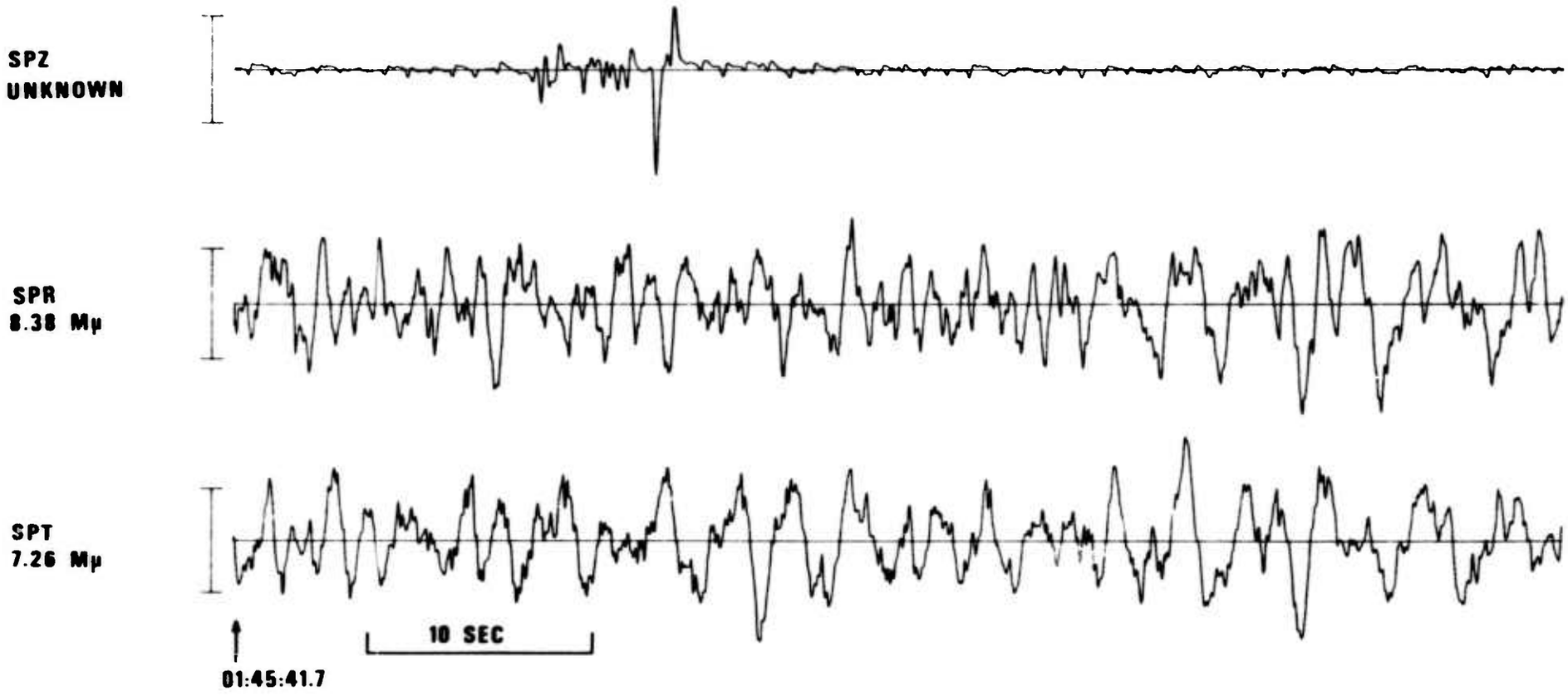

RK-ON 01 JUN 75
01:43:57.8
SPZ
66.97 Mμ
SPR
47.48 Mμ
SPT
13.72 Mμ
10 SEC


CP-SO 1 JUN 75
01:44:18.1
SPZ
39.25 Mμ
SPR
10.75 Mμ
SPT
12.03 Mμ
10 SEC


WH2YK 1 JUN 75
01:44:49.3
SPZ
8.92 Mμ
SPR
10.70 Mμ
SPT
7.82 Mμ
TIME
10 SEC
01:45:10

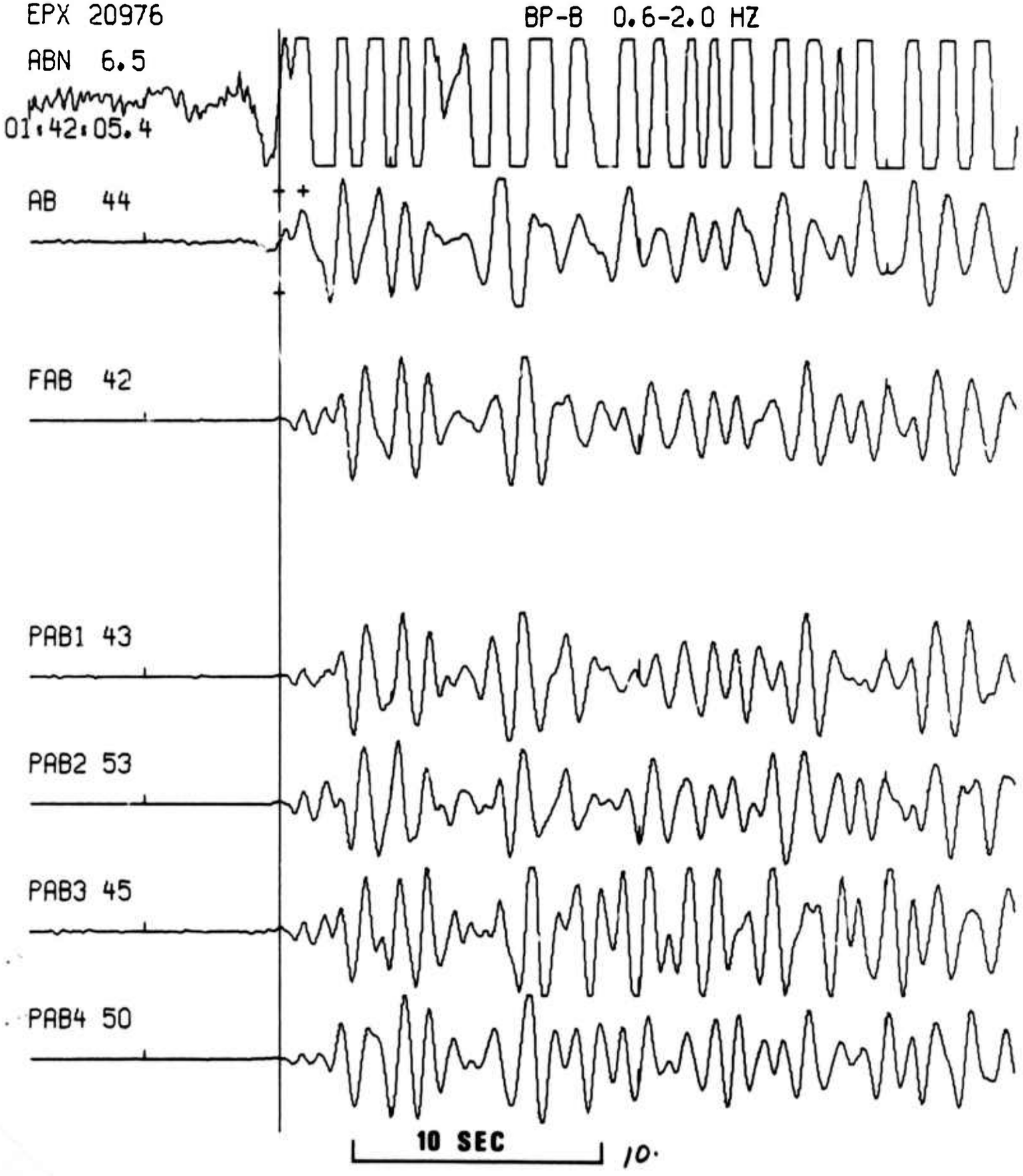

FN-WV 1 JUN 75
SPZ
5.64 Mμ
SPR
6.25 Mμ
SPT
7.51 Mμ
10 SEC
01:44:30

HN-ME 1 JUN 75



LASA

1 1 JUN 1975
2 1 41 40 45.1N 108.0W OG D 3.1 456 MONTANA
3 1 42 15.4 LAO P 17.5 1.0 7.9 2.0 220.2



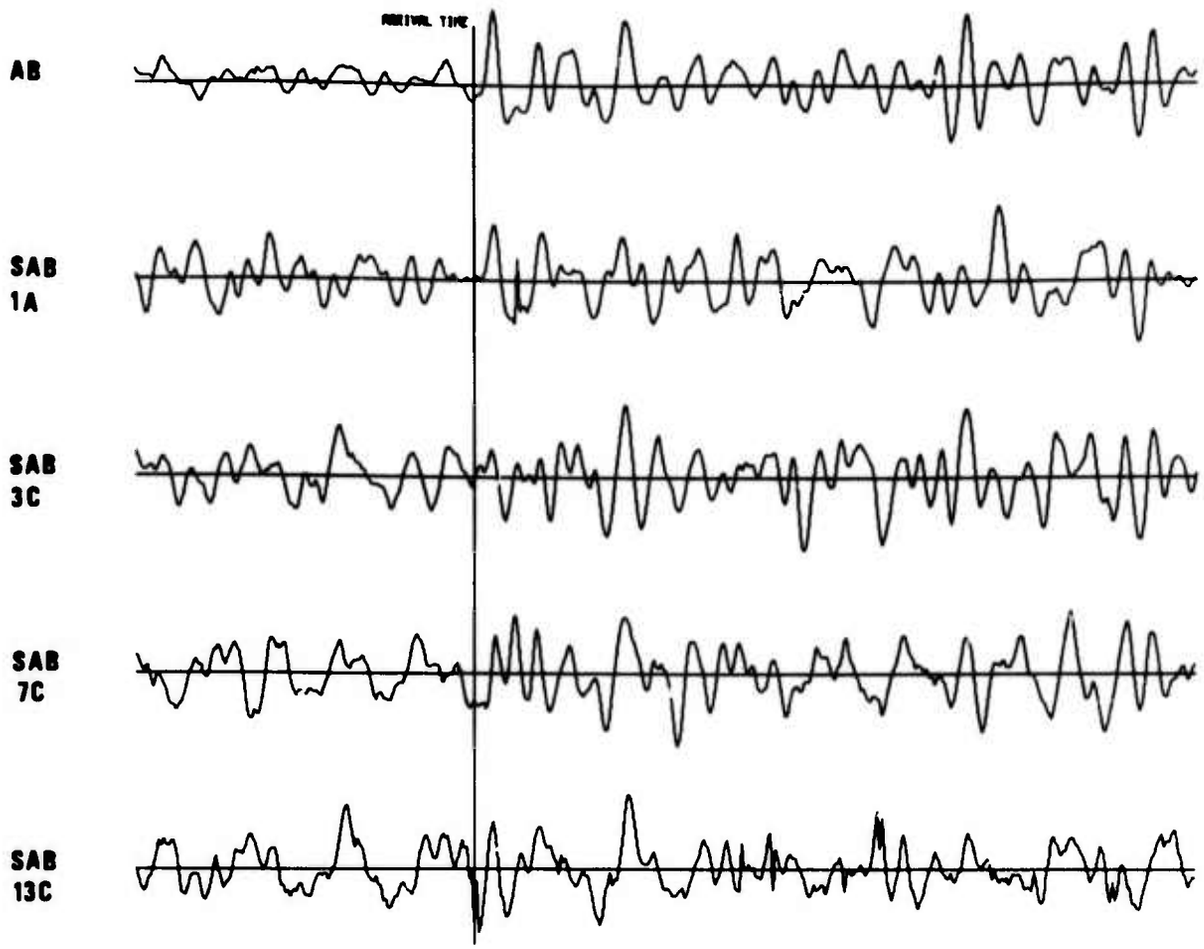
10.

NORSAR EVENT FILE 1975 JUN 1

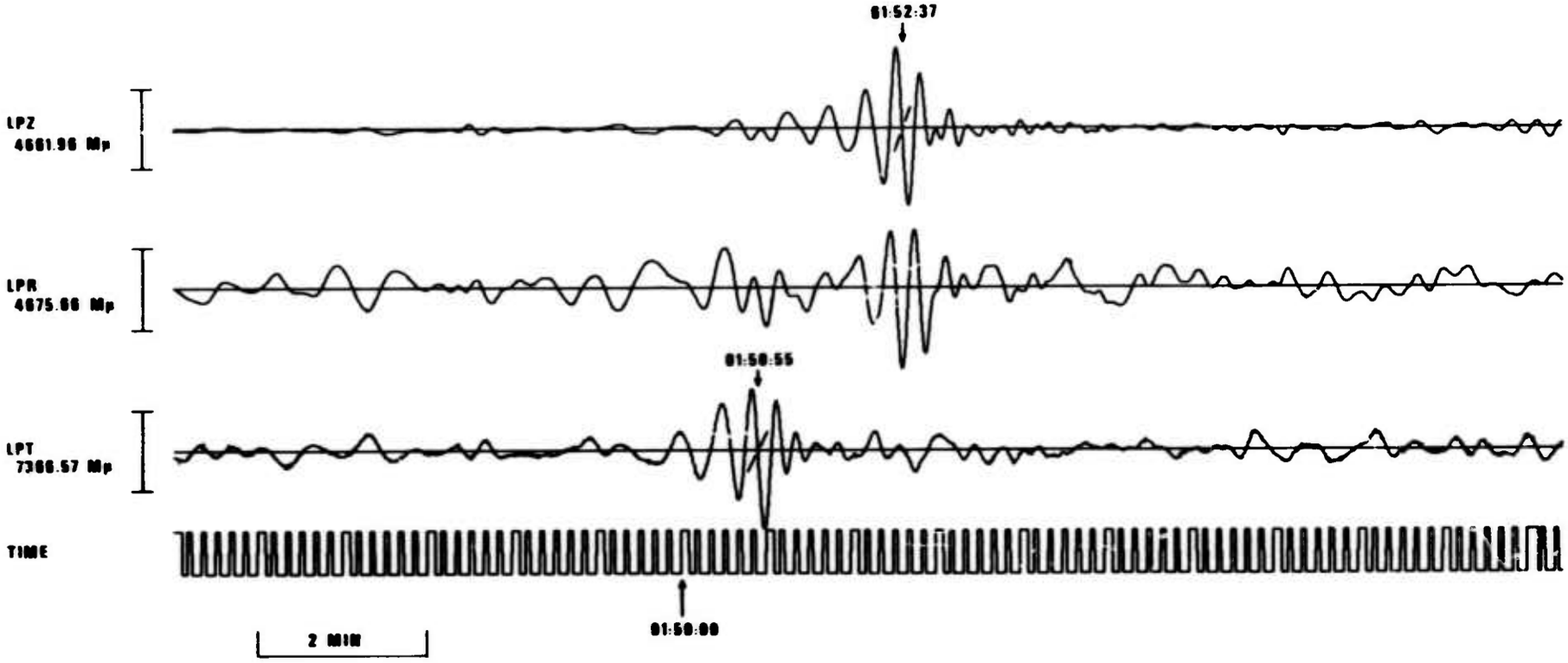
EPX NO. 91830 ARR. 1.50.36.9 35.1N 116.9W 4.1MB 33KM

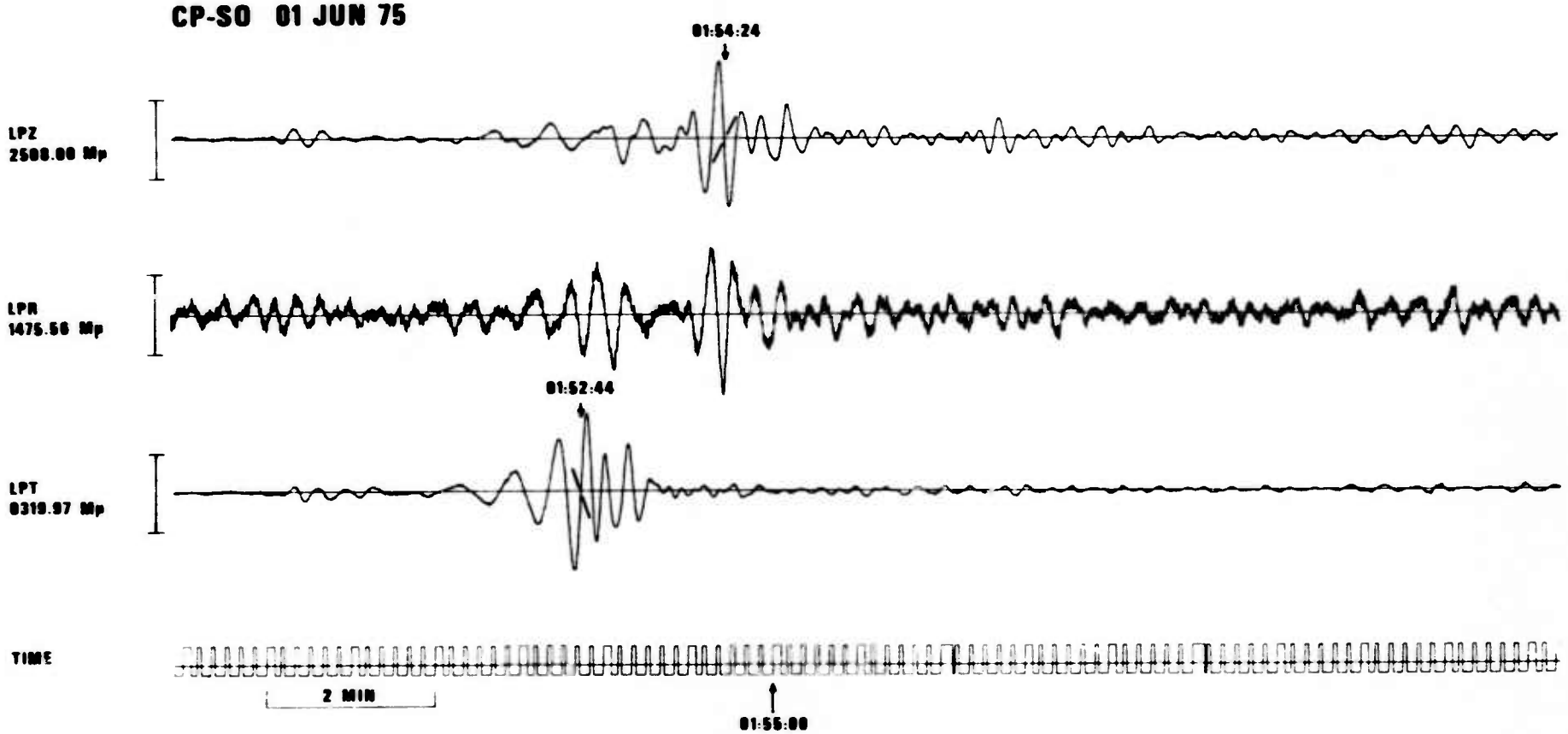
DIST = 75.3 AZI = 317.9 AMP = 2.1 PER = 0.9 UMETH 2

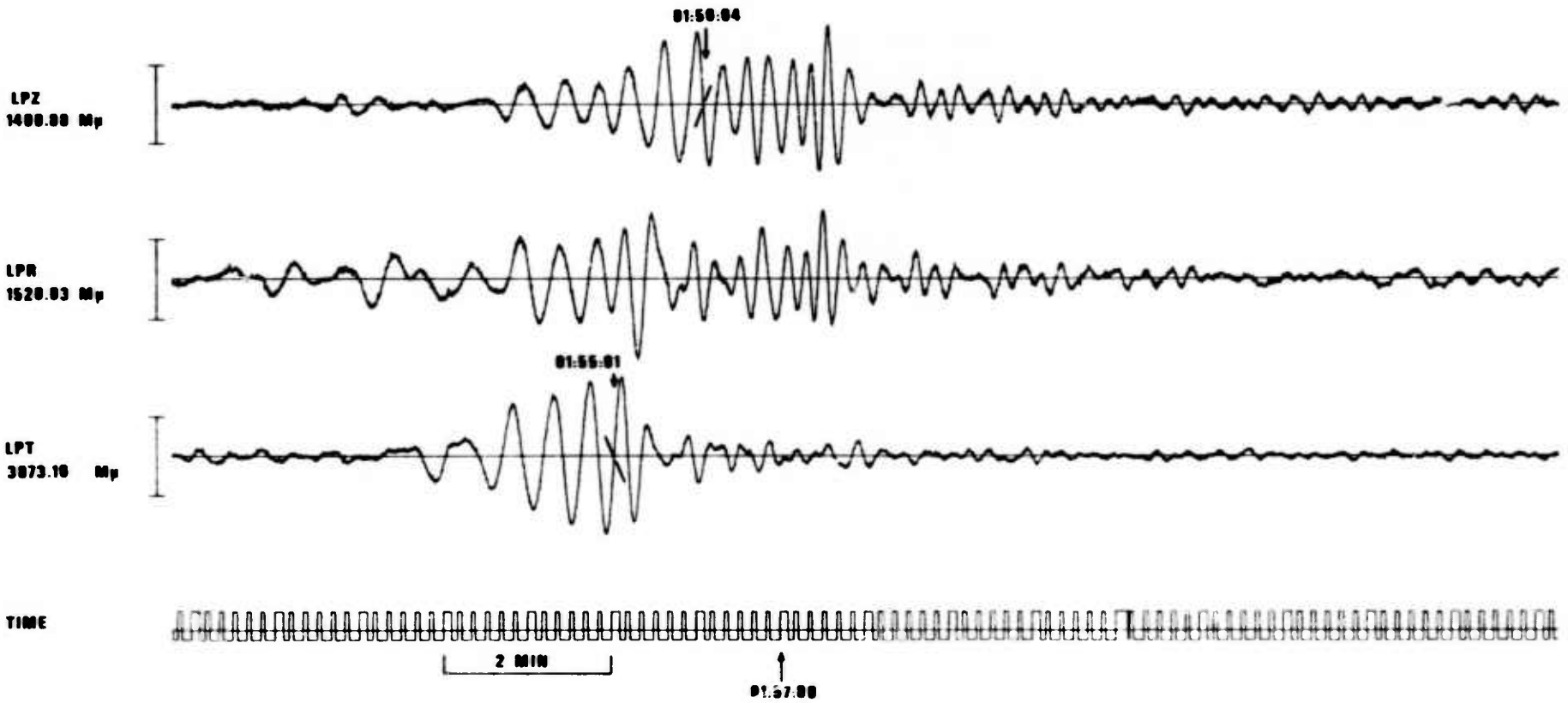
SCALE L_____J = 5 SECONDS

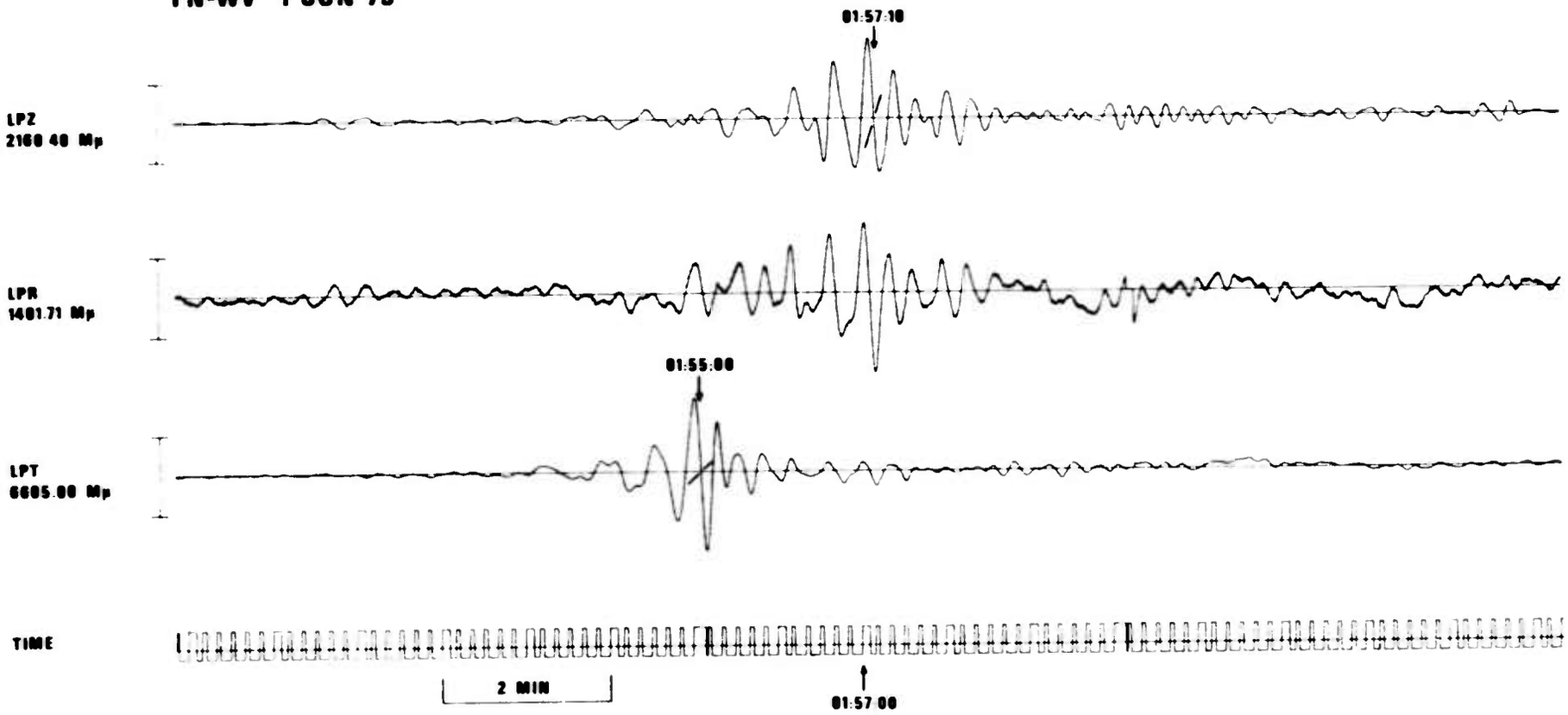


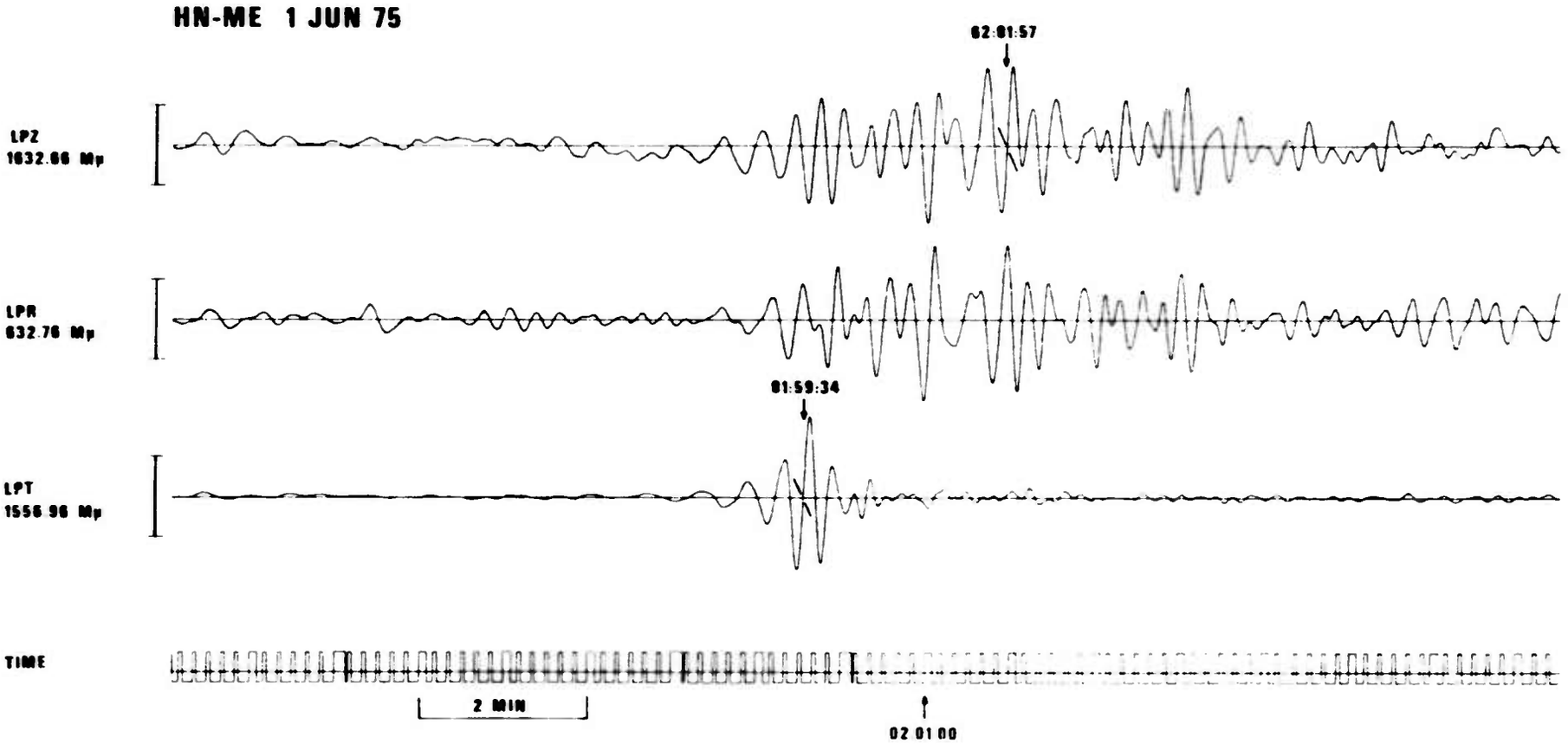
RK-ON 01 JUN 75



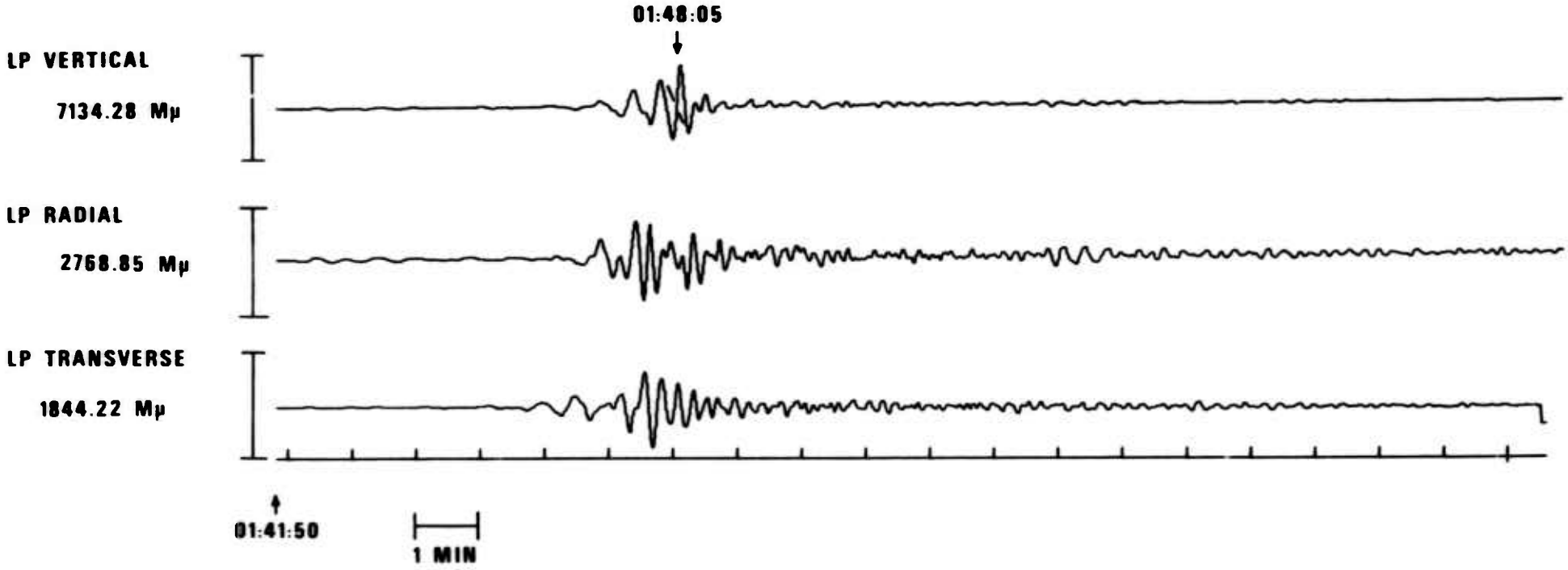

CP-SO 01 JUN 75
01:54:24
LPZ
2588.88 Mp
LPR
1475.56 Mp
01:52:44
LPT
0319.97 Mp
TIME
2 MIN
01:55:00


WH2YK 1 JUN 75
01:50:04
LPZ
1400.00 Mμ
LPR
1520.03 Mμ
01:55:01
LPT
3873.10 Mμ
TIME
2 MIN
01:57:00


FN-WV 1 JUN 75
01:57:10
LPZ
2160.48 Mμ
LPR
1481.71 Mμ
01:55:00
LPT
6685.88 Mμ
TIME
2 MIN
01:57:00


HN-ME 1 JUN 75
02:01:57
LPZ
1632.66 Mp
LPR
632.76 Mp
01:59:34
LPT
1556.96 Mp
TIME
2 MIN
02 01 00

LASA LONG-PERIOD BEAMS 01 JUN 75



NORSAR LONG-PERIOD BEAMS 01 JUN 75